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RESPONSE

Modernized Election System for Washington State

State of Washington
Request for Information (RFI) No. 16-04

Everyone Counts, Inc.
December 23, 2015

Prepared by: Everyone Counts, Inc.
Prepared for: State of Washington
December 23, 2015

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December 23, 2015

Stephanie Goebel
RFI Coordinator
Project Manager

Dear Ms. Goebel,

Everyone Counts is pleased to present the following recommendations to modernize the current election system for the State of Washington. Our experience maintaining and modernizing a statewide VRS system similar in scope and size to Washington's, positions us to recognize and meet the challenges presented by the State's current system. Because this response is not confidential, Everyone Counts is, unfortunately, unable to reveal as much detail as we would otherwise regarding our proposed solution. Nevertheless, the recommendations herein should give the State a jumping off point for understanding our approach.

We look forward to the opportunity to assist the State in meeting and exceeding your goals and requirements to ensure that the EMS/VRS application as well as our proposed Online Ballot and Election Systems solutions meet modern security, reliability, and interoperability standards while delivering full functionality, business continuity, and ease of use for each of the 39 counties in the state.

Our company mission is to use state-of-the-art technologies to modernize and improve election processes and improve services to election administrators, candidates, and voters. Our industry leading experience in developing, customizing, and implementing election administration and voting registration systems uniquely positions us to recommend an elections modernization solution for the State of Washington.

We are available to you if you have any questions or require clarification on specific issues and would like to thank you and the Office of the Secretary of State's staff for your time and consideration of our recommendations.

Best Regards,
Lori J. Steele
Founder and CEO

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EXECUTIVE SUMMARY

Everyone Counts is honored to respond to RFI No.16-04 for a Modernized Election System for the State of Washington. Launched from a determination to bring to elections proven state-of-the-art technologies, Everyone Counts has become the world's leading provider of modern election administration and voting systems.

Everyone Counts' expertise spans more than just software creation. We are presently engaged to system under a ten-year contract. Our employees are physically located within State facilities and interact with both County and State officials and users on a daily basis. This interaction includes, but is not limited to, monitoring, help desk, modernization implementation, training and system maintenance.

DEMONSTRATED UNDERSTANDING

Having thoroughly reviewed the documentation relating to this Request for Information (RFI), Everyone Counts understands that the State of Washington wishes to replace its legacy Election Management/Voter Registration (EMS/VRS) system with a new system and is looking to integrate an Online Ballot Delivery system and a State-Supported Elections system, to include a Voter Registration Database (VRDB) and Election Night Reporting (ENR) functionalities.

Based upon this understanding and our unrivalled track record of delivering complex voter registration and election management projects similar in scope and scale, Everyone Counts recommends that the State of Washington design and build a new EMS/VRS from the ground up rather than updating its legacy system. Cloud computing is an inflexion point in the market that affords the State the opportunity to migrate to a SaaS delivery model not previously available. This, in combination with a distributed architecture, allows for the system be continuously updated and improved without the risk of destabilization that could result in a catastrophic failure.

OUR SOLUTION

From the eLect Administration interface, election administrators can control system users and roles, system functions, and security settings. The eLect architecture includes extensive automation and configuration management tools give administrators the capacity to automate and control configuration changes, software deployments and build ballots. Underneath the simple and intuitive dashboard is a powerful and robust engine built on the keystones of eLect design – flexibility, scalability, reliability, accuracy, interoperability, and performance.

ELECTION MANAGEMENT/VOTER REGISTRATION SYSTEM

A new and improved EMS/VRS system customized by Everyone Counts for the specific needs of the State of Washington would meet current security requirements and modern software compatibilities while ensuring:

- Multiple levels of security with no single point of failure
- Modern standards for reliability
- Modern standards for interoperability with modern technologies, operating systems and browsers
- Optimal levels of support and service
- Data synchronization/standardization and increased capacity

Centralized Architecture

While is feasible to offer a multi-system solution whereby the county retains its legacy VRS, interfacing with each of the three (3) legacy systems, would require separate customizations and additional costs. For ease of operability, upkeep, cost efficiency and database maintenance, Everyone Counts recommends a centralized architecture that supports all 39 counties and provides advanced data and load management. To ensure the systems interact seamlessly, Everyone Counts recommends a single entity gain access to all legacy VRS systems to create the communication portals.

ONLINE BALLOT DELIVERY

Everyone Counts has successfully implemented its Electronic Ballot Delivery solution for a consortium of 13 Washington counties. Our proven track record in providing successful solutions for the consortium would allow the State's remaining 28 counties to benefit from our extensive knowledge of the State's election processes and business requirements.

ELECTION INFORMATION AND SUPPORT SYSTEMS

eLect offers extensive automation, configuration management and team collaboration tools as well as election night reporting. These tools provide the capability to automate and control configuration changes and software deployments, effectively support business requirements, and allow the 39 counties to self-learn, collaborate and grow together.

Election Night Reporting

Election Night Reporting allows the public to immediately view election results specific to them, in real-time. Feedback on current election reporting tools in the market revealed that voters are most interested in the results of contests they participated in. To improve this aspect of the voter experience, Everyone Counts developed My Results™, a unique tool which displays personalized results. By simply entering an address, the voter is presented with clear, graphical results reporting of the contests which appeared on their ballot.

INNOVATION FOR THE STATE OF WASHINGTON

The State's goal in this RFI is to bring the benefits of innovative solutions to your elections staff and voters. While Everyone Counts' solutions lead the market in innovation across the board, both in content and delivery, the following four (4) benefits best demonstrate how our culture of innovation is reflected in this proposal.

DATA INTEGRITY AND INTEROPERABILITY

The quality of data entered into a voter registration system and the integrity of that data over time is the foundation of voter trust and good communication. By utilizing modern contact methods and data management solutions, Everyone Counts' VRS automates many of the tedious, repetitive tasks that are required of election officials, including interoperability with outside data management resources, such as the National Change of Address (NCOA) and Electronic Registration Information Center (ERIC) database. Data is cleaner going in and stays cleaner over time. The end result is simplification, increased efficiency, and increased accuracy in voter communication and management.

ADAPTABILITY

Our experience as an elections technology leader has taught us that the one thing we can be sure of is change. eLect gives you the power to embrace change and the ability to maintain continuity through change, while reducing risks perceived as inherent to change. Our VRMS is designed from the ground up, allowing the State to adopt inevitable changes in technology – from operating systems to browsers and hardware. Our technologies additionally allow you to adapt to continually changing legislation, culture, and administrative rules and goals. eLect allows for the simple modification of rules, data structure, and reports, without the need for vendor change orders or code modification in most cases. For example, when legislative changes arise, the State can use our Legislative Rules Engine to make a simple configuration change that filters through the entire system.

INTUITIVE AND SIMPLE

At every step, Everyone Counts works to understand your processes and workflows. This gives us the ability to simplify complicated processes and automate repetitive tasks. The result is the simplification of election workers' daily tasks, which leads to an inevitable reduction in errors and greater efficiency. As an example, once a candidate's information is entered into the system, the data is populated in relevant drop-down menus and available for contact management, candidate tracking, ballot creation, and election reporting without the need to re-enter the information. Every aspect of our product is built with simplicity in mind. Simplicity for election administrators, candidates, and for voters – without compromising power, functionality, reliability, or security.

ABOVE INDUSTRY SECURITY STANDARDS

Everyone Counts understands security as being about layer upon layer of protection, cumulatively increasing the safety of the election project. We accomplish this by applying security measures that exceed industry standards for the election industry. Redundancies to ensure accessibility; software designed to prevent, and when necessary detect, intrusion; and controlled access to all

election hardware and software are each aimed toward ensuring the security of the election content and stored data.

No Single Point of Failure

Everyone Counts uses load balancers to evenly distribute system load across multiple election servers. In the event that any one election server experiences a hardware fault, the load balancer architecture automatically redirects traffic to an appropriately healthy node. Additionally, redundancies are built into the system's architecture composing each election. These systems are comprised of a shared-nothing, no single-point-of-failure design to ensure that any given hardware fault does not impact the availability of any election.

CONCLUSION

Everyone Counts' Software as a Service (SaaS) delivery model offers a perpetually state of the art election administration and voting system at a significant cost advantage over legacy solutions.

We applaud the State for its vision, insight, and planning to achieve a modernized elections system that ensures system interoperability, data integrity and standardization, flexibility, simplicity and security. As the leader in elections innovation for nearly two decades with proven experience in the State of Washington and elsewhere, we respectfully submit our approach for delivering just that.

BUSINESS REQUIREMENTS

Everyone Counts has validated the business requirements in Exhibit B and recommends that the State consider for inclusion the following requirements:

DISTRIBUTED ARCHITECTURE

It is paramount that the State has the ability to continuously improve the EMS/VRS, thus protecting its investment. A SaaS delivery model makes this possible and a distributed–or containerized–architecture makes continuous improvement more manageable offering the following benefits over a monolithic architecture:

RECOMMENDED (DISTRIBUTED) ARCHITECTURE	TYPICAL (MONOLITHIC) ARCHITECTURE
Issues are identified and addressed immediately offering the ability to continuously improve and grow (add code to) the system	Takes time and development hours to identify an issue
Developers are not bound to a single language	The system is written in and only recognizes one language
Impact of any one failure is localized	Failure to single point impacts entire system and can be catastrophic
Adding new code keeps system perpetually state of the art	Adding new code on top of old code will destabilize system

REAL-TIME INTUITIVE VOTER SEARCH

Real-time intuitive search allows users to quickly find a name or address using predictive functionality, thus improving the speed of searches, reducing user frustration, and increasing the user's productivity.

USER SUPPORT COMMUNITY

Everyone Counts recommends integrating a User Support Community where users can find and share solutions with fellow users across the state. Users could browse existing answers, ask a question, and share their expertise with others. If a question hasn't been answered before, the user could submit/post the question to the community and receive helpful feedback. An activity stream could display the latest replies to the discussions and topics that interest the user. Users can customize their stream, reply to discussions, and view unanswered questions.

By emphasizing early education and multi-channel communications, a User Support Community will help the State and Counties to educate, influence, and empower stakeholders for a smooth and successful transition to the new EMS/VRS process.

ONLINE CONTEXTUAL HELP

Everyone Counts recommends the system offer context-sensitive help providing help associated with a specific state, situation or feature of the software. Video support tutorials are highly accessible, allow for self-paced learning, interaction and offer a multidimensional experience that may combine charts, slides, photos, graphics, narration, screenshots, and on-screen captions.

ORCHESTRATED SYSTEM

Everyone Counts recommends the system have advanced self-healing properties allowing it to continuously analyze code, finds issues with the code, and fix them automatically.

BUSINESS REQUIREMENT EXCEPTIONS

Everyone Counts has validated the business requirements in Exhibit B and has not identified any requirements it believes to be exotic.

AVAILABILITY MANAGEMENT

Everyone Counts has validated and proofed the business requirements in Exhibit B and recommends our Software-as-a-Service (SaaS) delivery model which ensures the most cost efficient means to provide seamless updates with no downtime or interruption of business processes.

RTO AND RPO

We recommend that the Recovery Time Objective (RTO) as a complement of the Recovery Point Objective (RPO). The RTO and RPO describe the limits of acceptable performance in terms of time lost from normal business process functioning, and in terms of data lost or not backed up during that period of time, respectively.

RPO and RTO Objective Scale

The RTO should state the target for maximum time to recover from an outage incident related to any one of the following:

- System or module
- Server and network hardware
- Operating System software that results in the solution operating below the capacity

Everyone Counts recommends the state find a vendor whose systems have a proven Recovery Time Objective (RTO) and Recovery Point Objective (RTO).

DISASTER RECOVERY

BUSINESS CONTINUITY

Business Continuity and Disaster Recovery planning methodology starts with a Business Impact Analysis (BIA) that includes all system elements and stakeholders responsible for each system and process. From the BIA, the Recovery Time Objective (RTO) is established. All strategy that could potentially aid in enabling resumption of a business process within or closely with the RTO should be considered, including manual procedures or workarounds.

In the event of a labor dispute, illness, catastrophe, missed items, lost items and/or damaged items, Everyone Counts recommends that internal BCP Plans be in place as well as cross-trained backup personnel with intimate knowledge of each project.

SCHEDULED AND UNSCHEDULED MAINTENANCE

Everyone Counts recommends that Business Continuity Plan changes be broken out into two categories, both of which follow a formalized Change Management process that modifies the BCP as necessary:

- Scheduled Maintenance, which is "time-driven"
- Unscheduled Maintenance, which is "event-driven."

RAID TECHNOLOGY

Everyone Counts uses, supports, and recommends the use of redundant hardware. Everyone Counts recommends Data Centers that employ Redundant Array of Independent Disks (RAID) and host interleaving within a CEPH storage cluster to minimize the possibility of loss or corruption of electronically stored data due to hardware failure. RAID technology uses computer data storage schemes that divide and replicate data among multiple physical drives. Applying this technology provides exceptional data reliability and increased input/output (I/O) performance. In addition, disk-based backup and replication technologies should be used to ensure that critical data is replicated to the primary and failover hosting facilities. For a loss or corruption of data to occur, it would require multiple failures to the RAID or a catastrophic failure, such as simultaneous total power failure to multiple systems at multiple Data Centers.

DISASTER RECOVERY PLANNING

Everyone Counts recommends a Disaster Recovery that contains the following items:

- Determines and defines "Disaster"
- Establishes escalation procedures
- Creates team checklists—Management, Facilities, IT, and Human Resources
- Creates relocation and migration contingencies and task checklists
- Creates and maintains vendor hardware and software lists

- Stabilizes and defines environment backup procedures
- Establishes and documents off-site procedures
- Provides a clear notification and communication process for employees and other stakeholders
- Defines business function ramp-up procedures
- Maintains backup copies of license agreements and procedures
- Maintains disk backup procedures

An effective Disaster Recovery management system should include the ongoing process of planning, developing, testing, and the implementation of Disaster Recovery management procedures and processes to ensure the efficient and effective resumption of vital business functions in the event of a disaster. Problem and Change Management include not only the traditional hardware and software that comprises a system, but also environmental changes in buildings, changes in processes, and organizational changes.

DISASTER RECOVERY TEAM

In order for this plan to be useful, the plan should be published and readily available to all members of the Disaster Recovery Team (DRT). We recommend that the plan be activated at the first sign of a potential disaster. In addition, the plan must be updated and tested on a regular basis. Use of the plan to recover from a disaster will provide an orderly, logical sequence of events to ensure minimal disruption of operations and some level of organizational stability during recovery from a disaster.

SYSTEM INTEGRATION APPROACH/METHODOLOGY

Everyone Counts recommends developing an API to integrate the State of Washington's centralized voter registration with Counties that maintain their own systems. It is recommended that the State complete this action, which requires access to the County's system to ensure flawless communications and real time updates.

Everyone Counts recommends Custom Web Service APIs be provided to connect to all required external interfaces, such as the DMV and the DPS felon interface. For external agencies that have their own API for public consumption, the vendor should work with the agency and the existing API to leverage functionality where possible.

For fast real time performance, it is highly recommended to only implement extremely efficient real-time APIs such as REST. All APIs should be designed to ensure that consistent performance results are maintained throughout each of the applications they address.

Regardless of which API is used, the system should have the capacity to perform real-time verifications of voter data using a highly intuitive database query interface and compare the DMV data—such as driver's license number, name, the last four (4) digits of the Social Security number, or date of birth—to data provided by a potential voter during the registration process as well as transferring voter files between the different VRSs within the state. Once the voter's identity is verified in the system, the registration attempt can be affirmed or denied. If denied, the voter's affidavit will be stored with a status of PENDING and placed in a queue for the Clerk to approve.

PROJECT MANAGEMENT APPROACH/METHODOLOGY

Everyone Counts recommends a traditional windfall project management methodology adhering to a sequential design process. The phases of this downward flowing (waterfall) model include:

1. Initiation
2. Analysis/Design
3. Development
4. User Acceptance Testing/Review
5. Production/Implementation
6. Maintenance

Everyone Counts recommends that Project Management policies and procedures be in place for every phase of development, delivery, and service. The State should look for:

Proven Support Methodologies
Exemplary Customer Service
A Reputation you can Trust
Efficient Solutions
Targeted Project Management Tools
Experienced Project Managers and Procedures
Exemplary Help Desk and Hosting Support Personnel
Business Continuity Planning and Maintenance
Effective Disaster Recovery Planning and Implementation

PROJECT MANAGEMENT TOOLS

The use of robust, targeted tools allows for simplified task additions, dependency and duration adjustments, and precise resource assignment for specific tasks. Task management practices should create a clear accountability and, if required, a clear escalation process. Project managers and team members should receive automated notifications of open items and reminders as task deadlines approach. Incomplete tasks should be escalated to management for review to ensure that each task and associated deliverable is on target for the scheduled delivery date.

TRANSPARENT AND COLLABORATIVE APPROACH

The Project Management team should work closely with State and County stakeholders to ensure as transparent an implementation and working process as possible. The team should take a proactive and collaborative approach to problem solving to avoid and/or eliminate potential pain points.

FUNDING APPROACH/ COST DISTRIBUTION

Online voter registration presents significant cost savings over paper-based registration.[1] For example, California officials estimate the cost of processing a paper-based voter registration application at $2.95 per application. In contrast, the total cost for a registration application submitted online is only 10 cents—nearly one-thirtieth of the cost of a paper application.[2] Because of these savings, California's online voter registration system paid for itself in its first year of operation and even generated a net savings of some $700,000.

OSOS has the opportunity to provide members of legislature with the tangible benefits of the net savings and the win-win-win (funders, voters, and election administrators all benefit) of the modernization of a statewide EMS / VR system by pointing out that state funding/purchase of a modernized voter registration system will allow the State of Washington to maximize its buying power and get more for less.

There are a number of options for funding this project, as the State is driving the procurement you have the opportunity to capitalize on economies of scale and ensure all counties, regardless of size, benefit from a standardized pricing model.

Everyone Counts proposes an approach in which the State funds the Software-as-a-Service annual subscription fee (or considers a split of 80/20) for the EMS / VR system. In line with the proposed contract structure the counties could fund the services required, per entity, to deploy and integrate the EMS / VR system. This would match the Statement of Work contract structure that could outline all the services required to deploy the system in each county.

[1] Social Science Research Center. "The Cost of Modernizing Voter Registration Systems: A Case Study of California and Arizona."

[2] California Secretary of State, "California Online Voter Registration Project Proposed Performance Period."

DATA CONVERSION/MIGRATION

Everyone Counts recommends a data conversion and migration strategy and plan approach that applies proven best practices to ensure that each element identified can be clearly verified and that all items in the plan are addressed in the most efficient and cost effective manner.

REQUIREMENTS AND RESPONSIBILITIES

The following table lists the high level elements recommended by Everyone Counts' for data migration and conversion of the data. The columns at the far right indicate participation by vendor, Washington State (WA), or both.

PROJECT PHASE	VENDOR	WA
Discovery Phase	•	
Data Examination	•	•
Method Development	•	•
Data Cleansing	•	•
Data Validation	•	•
Staging		•
Migration Process	•	
Data Conversion Module	•	
Post-Migration Tasks	•	•
Go Live	•	•

DEFINING DATA MAPPING RULES

Everyone Counts recommends data mapping rules and one-directional data mapping processes be developed and defined for appropriately mapping data values from the existing system to the new schema. For data mapping from the State's current source to the new target, Everyone Counts recommends an automated data migration script or scripts that perform the following:

1. Extract data from existing systems.
2. Apply any transformations necessary to fit the new data model and populate the new databases.

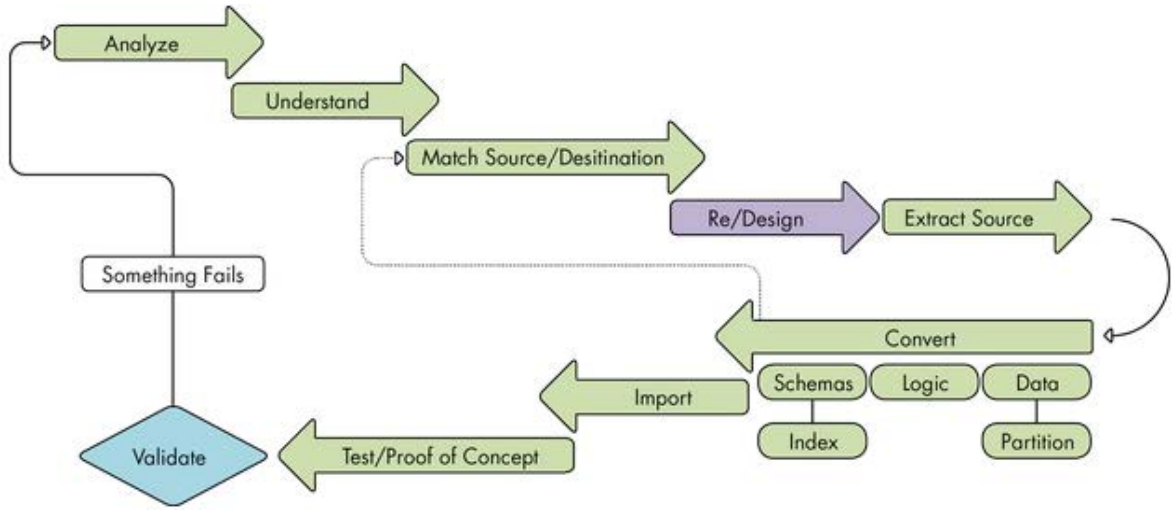
This process should be frequently tested throughout the engagement to ensure an effective conversion.

DATA EXTRACTION, TRANSFORMATION, STAGING, CLEANSING, AND VALIDATION

During the transformation process, Everyone Counts recommends that system is no longer reliant on pieces that may have been pieced together over many years or separated from the database servers.

Data Extraction and Cleansing

The following diagram provides a snapshot of the recommended data extraction and cleansing process, which should be implemented using an iterative, phased approach.



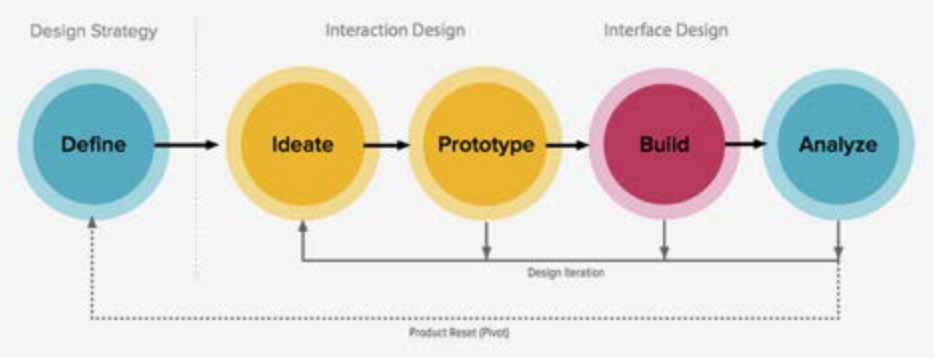
Example: Phased Approach to Migration Process

Data Conversion and Migration

It is recommended that extensive testing is done on the converted data prior to moving to the new system. Upon verification and sign-off, DNS entries should point to the new system and end-to-end functional testing should be run to ensure the system functions as intended. In any post-migration verification steps, the State should continue to use the legacy system side-by-side with the new system. Any changes to data during the transition process can then be verified with the legacy system to verify functionality of the new system. When and only when the two systems match perfectly, should the legacy system be decommissioned. This process is expected to take up to 6 months.

USER EXPERIENCE DESIGN APPROACH/METHODOLOGY

User experience (UX) design is the process of enhancing customer satisfaction and loyalty by improving the usability, ease of use, and pleasure derived from the interaction between the customer and the product. Everyone Counts' design team uses and recommends the following UX approach:



METHODOLOGY

DESIGN STRATEGY STEPS

- User Story: a breakdown of each user task that can be accomplished within the product experience.
- Personas: A relatable snapshot of the target audience that highlights demographics, behaviors, needs and motivations.
- Stakeholder Interviews: Scripts for interviewing key stakeholders in a project, both internal and external, to gather insights about their goals.
- Key Performance Indicators: Pre-established criteria to measure progress toward strategic goals or the maintenance of operational goals.

EXPLORATION METHOD STEPS

- Brainstorming Sessions: Visualize a broad range of design solutions before deciding which one to stick with.
- Moodboards: A collaborative collection of images and references that will eventually evolve into a product's visual style guide.
- User Flow: A visual representation of the user's flow to complete tasks within the product.
- Task Analysis: A breakdown of the required information and actions needed to achieve a task.
- Taxonomies: Define the content structure to support the user's and the organization's goals.

PRODUCT PLANNING STEPS

- Content Audit: A listing of all content available on website.
- Heuristic Analysis: An analysis of the product highlighting good and bad practices, using known interaction design principles as guidelines.
- Use Cases and Scenarios: A comprehensive list of scenarios that happen when users are interacting with the product.
- Metrics Analysis: Numbers provided by an analytics tool about how the user interacts with your product.

USER RESEARCH AND VALIDATION STEPS

- Focus Group/Advocacy: A panel of people discussing a specific topic or question. Teaches about the users' feelings, opinions and even language.
- Usability Test: And one-to-one interview research in which the user is asked to perform a series of tasks in a prototype or a product. Validates pain points and collects feedback of flows, design and features.
- Card Sorting: Asking users to group content and functionalities into open or closed categories.
- A/B Testing: Offering alternative versions of your product to different users and comparing the results to find out which one performs better.
- Accessibility Analysis: A study to measure if the website can be used by everyone, including users with special needs.
- Eye tracking: Analyzes the user's eye movements across the interface.

USER INTERFACE DESIGN STEPS

- Sketches: Validates product concepts and design approaches both with team members and users.
- Wireframe: Represents the page structure, as well as its hierarchy and key elements.
- Paper Prototype: A simulation of the website navigation and features, commonly using clickable wireframes or layouts.
- Clickable Prototype
- Pattern Library: Provides examples (and code) of interaction design patterns to be used across the website.
- UI Style Guideline: A set of standards for the writing and design of website that enforces best practice in usage.

USER TRAINING

- Integrated and Contextual Walkthrough: Unobtrusive, just-in-time, hints, reveals, contextual messages highlighting the location of various buttons, sections, etc. and exposing software workflow.
- Instructional videos
- Hands-on training seminars
- Webinars

SERVICE AND MAINTENANCE

Everyone Counts recommends that the state's existing hardware meet minimum standards for security and performance standards of the vendor's proposed solution.

PREVENTATIVE MAINTENANCE PROCEDURES

Everyone Counts' recommends preventative maintenance tasks that include software backup, database performance analysis, and database tuning. The vendor's implementation team should possess both the skills and targeted experience required to perform each of these tasks, as well as the resources to do so.

CORRECTIVE MAINTENANCE PROCEDURES

Everyone Counts' recommends that secure data centers provide fault detection and isolation and automated correction procedures in place to guide the process of identifying and diagnosing issues related to software controlled by users. We recommend procedures include, but not be limited to the following:

- Recommendation on replacing State's deficient or failed equipment
- Correcting deficiencies or software faults
- Modifying and upgrading software or software modules
- Ensuring that the correct number of personnel with the correct skill set is available to accomplish each task
- Ensuring that resources needed to accomplish each task is available

REPAIR WARRANTY

Everyone Counts recommends a warranty be provided for all System Software for the Initial Service Period with an extended service warrant of 5 years. Both the Initial Service Period and the Extended Service Period should cover all Deliverables, System Software and EMS/VRS Software, including any parts and labor.

UPGRADES TO SYSTEM SOFTWARE

Everyone Counts recommends that software vendor agree to make available to the State and any Authorized User, no later than the first day of general release, copies of the System Software and documentation revised to reflect any enhancements (including New Versions and upgrades) to the System Software.

KNOWN DEFECTS

Everyone Counts recommends that the vendor promptly notify the State and any Authorized User of any defects or malfunctions in the Deliverable, associated System Software or Documentation of which it learns from any source, correct any such defects or malfunctions or provide a workaround until corrected within five (5) Business Days of knowledge of such defect or malfunction and provide the State or Authorized User with corrections of same, at no additional cost to the State or Authorized User.

SERVICE LEVELS

Everyone Counts recommends that the State require a service level agreement that includes provisions for guaranteed up time, incident management, incident severity, business continuity and disaster recovery.

TRAINING AND SUPPORT

Everyone Counts' recommends that Support Services include:

- Business and System Analysts
- Help Desk Services
- Hosting Services
- Professional Services
- Project Management

HELP DESK SERVICES

Everyone Counts' recommends support services be available 24x7, 365 days per year. The following outlines services provided in a typical Help Desk solution:

TIER 1	Help Desk services are staffed during normal operating hours with subject matter experts (SMEs) who are experts with your application and can offer insight into resolutions for the most common problems facing daily users of the system.
	
	All issues reported are logged into an issue tracking system where progress can be monitored and escalated if needed.
	
	Typical Call Center Support operating hours:
	
	• Normal Hours of Operation:
	  ○ 8:00 AM to 6:00 PM, Monday through Friday
	
	• Blackout Period Preceding Election:
	  ○ 7:00 AM to 8:00 PM, Monday through Friday
	  ○ 8:00 AM to 6:00 PM the three Saturdays preceding an election
	  ○ 6:00 AM to 8:00 PM on Election Day
	  ○ 8:00 AM to 6:00 PM the two Sundays preceding a Primary or General election
	  ○ Support provided regardless of holiday
	  ○ Additional support provided on Sunday during peak usage and 29 days prior to an election

TIER 2	Provides Technical Specialist for Functional analysis
TIER 3	Provides Project Manager and Project Team for Technical analysis

TRAINING SERVICES

Everyone Counts recommends staff be provided with detailed training in the operation and maintenance for all aspects of the EMS/VRS. We recommend general training sessions be made available for the voting public to educate those interested in new technologies being used in their jurisdictions.

Training Formats, Scheduling, and Facilities Planning

Everyone Counts recommends training be conducted onsite, at a location selected by your organization, or over the Internet using web-based training modules. We recommend that training modules use actual data from your voter registration system, so that each exercise more closely represents the unique features of the jurisdictions being served.

Train the Trainer

Everyone Counts recommends that all training options have a "Train the Trainer" session available to ensure that your staff, as well as any new personnel who come on board after training, can quickly learn the tasks required of them. No single administrator need carry the burden of scheduling planned or unplanned training tasks.

Training Results

After appropriate training and orientation, participants should be expected to have the ability to maintain the EMS/VRS, without assistance, for general day-to-day usage and normal business operations.

PROJECT MANAGEMENT TOOLS AND SERVICES

Everyone Counts recommends that vendor provide the State with a detailed project plan that is easy to understand and easy to reference for required reporting metrics. Strategies that emphasize risk assessment should be integrated into our project management methodology.

Project Management policies and procedures should be in place for every phase of development, delivery, and service.

Project Management Tools

Everyone Counts recommends that task management practices create a clear accountability and, if required, a clear escalation process. Project managers and team members should receive automated notifications of open items and reminders as task deadlines approach. Incomplete tasks should be escalated to management for review to ensure that each task and associated deliverable is on target for the scheduled delivery date.

CONTRACT STRATEGIES

Due to the scope of this project and the number of potential participating entities Everyone Counts recommends a Master Services Agreement (MSA) structure executed between Everyone Counts and the State. This Master Services Agreement would establish the standard contractual terms and conditions that would govern all implementations at the State and county level. The MSA would also establish standardized pricing for all projects and implementations by any entity. The MSA would be structured to accommodate individual entities to establish Statement of Work (SOW) as an appendix to the MSA which would be governed by the MSA terms and conditions and pricing.

Each individual county could then procure the solution and services from Everyone Counts through an entity-specific SOW that would be tailored to their specific needs, requirements and timelines.

This MSA approach with the State would save each entity a great deal of time, effort and resources required to established individual contracts with each county or organization. It also ensures that each entity receives the most favorable terms and conditions as well as most favorable pricing, regardless of size.

The SOW's would ensure that the project is tailored to the specific requirements and scope of each entity or county and their specific project needs, timelines, and deliverables.

TESTING AND QUALITY ASSURANCE PLAN

Everyone Counts recommends the following process related to Testing and Internal Quality Assurance (QA) Processes:

PROJECT PREREQUISITES

The Project Checklist acts as a master control document to answer and validate any questions related to a task, line item, action item, or verification trail. Where possible, the checklist captures required signatures in a digital format. Everyone Counts recommends a Project Checklist that includes but is not limited to, the following:

- High Level Requirements
- Detailed Design Documents
- Software Coding Conventions
- Testing
- Version Control
- Customer Installation
- Customer Training

Data contained in the Project Checklist includes details about each activity and artifact that is created for the project and the responsible staff member, supervising staff, and QA staff responsible for successful completion of the task or artifact deliverable. Where a separate document, signature, or email is referenced, a link is provided to that document for immediate verification.

Each document that comprises the entire history and tracking of the project is uniform in nature, uses uniform acronyms and terminology, and contains a list of revisions. Revision information includes revision number, date of revision, and a description of changes. Each document additionally names an author and specifies a reviewer.

REQUIREMENTS TRACEABILITY MATRIX

All software functionality should be planned, developed, reviewed, and tested using relevant test types. Functionality is then approved and accepted by management and then customers. A Requirements Traceability Matrix should be created that displays an established process in a compact format, with links to attachments, logs, or reference material, without the need to query a database or multiple document management systems containing large numbers of documents. It also eliminates the need to analyze printed meeting summaries and signed documents.

INTERNAL QA PROCESSES

Everyone Counts recommends a Quality Assurance (QA) team test all aspects of every system deployed, including:

- Voter experience, running in multiple browsers and operating configurations
- Software configuration
- Software installation and deployment
- Administrative and user experience

TESTING SCHEDULE

Periodic milestone builds should be and made available to clients to support their elections. Once Data Centers are secured, hardware identified, purchased, and configured, software products can be deployed and testing can commence.

TESTING SERVICES

The following table summarizes the various types of testing in an SDLC, the objective of the testing type, and the testing levels used to address the type of testing:

NO.	TESTING TYPE	OBJECTIVE	TESTING LEVEL
1	Functional	Verify proper data acceptance, retrieval, processing, and business logic.	Unit, Integrated
2	Reliability / Robustness	Verify robustness and integrity through boundary condition behavior and the integrity of persistent data.	Unit, Integrated
3	Business Cycle	Verify periodic/date sensitive activities.	System
4	User Interface	Verify navigation, use of access methods, consistency, and feedback.	Unit, Integrated
5	Security and Access Control	Verify role based access control/authentication/data security	System
6	Failover and Recovery	Verify system behavior in failure conditions	System
7	Installation	Verify new installation, upgrade version	System
8	Load / Volume	To determine and ensure that the system functions properly beyond the expected maximum workload	System
9	Performance	To evaluate performance characteristic response time.	System

CODE AUDITS

All additions and modifications should adhere to industry standard best practices. Everyone Counts recommends multiple approvals be provided on each change and every new feature introduced. Everyone Counts recommends access to the code is strictly controlled, and all code that is checked into the system is required to undergo stringent testing and pass a peer review process. New features, enhancements, and bug fixes should be tracked and triaged using a comprehensive defect tracking system; this controls updates, enhancements, or fixes made to the product source code. In addition, to ensure that all features are well documented and thoroughly tested, each feature should have associated requirements, design documents, unit tests, formal test cases, and test plans.

SECURITY TESTING

In addition to running in-house security tests, which include tests for cross-site scripting, cross-site request forgery, and SQL injection vulnerabilities, Everyone Counts recommends routinely engaging third party security teams to further test the system. Third party security teams should be used to run penetration tests against production deployments and a wide area of other testing. Testing should be used to actively update, refine, and enhance the security.

PERFORMANCE TESTING

Everyone Counts recommends routinely validating system performance utilizing industry accepted tools, as well as industry created test suites that are specifically designed to ensure that the deployed software exceeds the anticipated turnout volumes, be it requests per second or votes per hour. Initiating performance testing on production-like systems fosters confidence that each application being deployed can perform as expected and handle the anticipated number of voters and tabulated votes.

AUTOMATED TESTING

Everyone Counts recommends employing automated testing techniques using industry standard tools and practices. Automated tests allows for comprehensive, repeatable regression tests in a highly efficient manner.

STATIC CODE ANALYSIS

Everyone Counts recommends a third party software data analytics company to perform static analysis code tests.

PERFORMANCE TESTING ASSESSMENTS

Everyone Counts recommends that for each milestone, appropriate tasks for specific tests and testing periods are factored in and tracked through to completion and acceptance.

SYSTEM REDUNDANCIES

Everyone Counts recommends using modular, stateless, and scalable components that provide enhanced security and the ability to support high volume traffic. When deploying the components, Everyone Counts recommends that there are at least two instances (redundancy) of each component (including data storage). This assurance eliminates any single points of failure and increases system security by providing only the minimum level of permissions for each module.

Everyone Counts recommends a design process ensures that the database is not a single point of failure. We recommend mix of clustering replication techniques that safeguard against data loss and ensure data integrity.

USER ACCEPTANCE TEST FAILURE RESOLUTION

Everyone Counts recommends the State staff perform acceptance testing with staff from vendor present as support. If any unit or portion of the modernization system fails to pass an acceptance test and does not receive signoff from SBE, the State should notify the vendor's staff of the reason for failure on those units and the vendor should be required to either resolve the cause failure or replace those units.

MOCK ELECTION

Everyone Counts recommends a training curriculum that includes a Mock Election for the State of Washington, including but not limited to the following tasks:

- District and Office setup
- Candidate filing "week"
- Election Creation
- Pull District and Offices
- Calendar deadlines and tasks assigned to staff
- Pull Voters into the Election
- Review Voting Centers and Drop Boxes
- Review Election Creation
- Issue Ballots by Voter Type
- Send voter file to Printer or prepare for in-house printing
- Pulling additional Voters and issuing ballots
- Managing Vote Centers (i.e. staff, issuing ballots, supply lists, Drop Box schedule management)
- Handling incoming ballots
- Scanning and batching or single scan
- Signature verification
- Sending challenge letters
- Balancing and reporting incoming ballots
- Certification, Reporting, and Retention

TRAINING PLAN

Everyone Counts recommends a training plan that will provide State election administrators with detailed training for the operation, maintenance, and all aspects of the EMS/VRS. Training should be provided to designated State and County staff. We recommend voter registration training be made available for the voting public to enfranchise those interested in new technologies being used in their jurisdictions.

Everyone Counts recommends training exercises based on new functionality and/or seasonal refresher updates. Given the probability that functionality will change, Everyone Counts recommends a rapid e-Learning approach to train users of the Washington Statewide Voter Registration System (VRS)

TRAINING METHODOLOGY

Everyone Counts recommends a training system that utilizes multiple communication mediums, clear course objectives and logical course breakdowns by functionality sets and user groups.

TRAINING AUDIENCE

Training and documentation are task-oriented, role-based, and follow the appropriate workflow for the intended audience. The designated training team should interact with the State officials to provide an effective training plan that will ensure that the target audience achieves the learning objectives for training and is effectively prepared.

The training should be tailored to meet the learning and logistical needs of the following audience group:

- Users of the system: State and County Election Officials
- Administrators of the system: State and County Election Officials
- Other essential staff as advised by Customer

Everyone Counts recommends the staff undergo role-based training on hardware as well as software. The training should address potential differences in the various targeted audiences, to include interactive hands-on activities, case studies, and problem-solving opportunities in instructional design and training materials for participants who learn by doing. The training approaches should also include content, visuals, and auditory learning tools such as the following:

- Learn by listening and sharing ideas: reflecting alone and then brainstorming with others

- Learn by thinking through ideas: lecture and reading
- Learn by testing theories and applying knowledge
- Learn by self-discovery
- This approach to training supports the development of effective materials that make an impression on participants and increase knowledge retention.

Everyone Counts recommends following the industry-standard Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model for instructional design, which includes analysis of a client's needs for training materials and a method to meet those needs. Intended audiences, content, and business goals are considered during the ADDIE process to ensure a curriculum is unique, effective, and engaging.

TRAINING OBJECTIVES

The primary objective of training the State and County staff should be to develop and design a training program to meet the varying needs of stakeholders and provide a cost-effective manner to deliver training to users at multiple locations. The other objectives of training are as follows but not limited to:

- The training will ensure all types of learners and users are able to understand and utilize the eLect VR Solutions. It is recommended that the State to generate a list of users to be trained and the training methodologies to be used.
- Users are trained irrespective of their location.
- As a result of the training, the staff should be able to perform their day-to-day duties as well as election day duties without any assistance.

APPROACH AND METHODOLOGIES

In the first phase of this project, Everyone Counts recommends an assessment of the complete training needs of all stakeholders. This should include documenting the users of each phase of the implementation, agreement on the systems and processes that will require training, and identifying the methods and locations that will deliver the most beneficial and lasting results. We recommend that online tools be created for core modules allowing self-paced training and ease with refresher training.

- CLASSROOM: Everyone Counts recommends small group, classroom style sessions led by a skilled facilitator on-site and are developed to ensure that learning objectives are achieved through appropriate interactive learning activities. Instructor-led classroom materials include a participant guide and a Microsoft PowerPoint facilitator guide with facilitator instructions. Training modules on role-specific topics.
- TRAIN THE TRAINER: Everyone Counts recommends small group Train the Trainer sessions in which the designated trainees will gain valuable knowledge on how to effectively train not only on the eLect VR Solution, but also will ensure that they are equipped with the most effective training strategies.

- WEBINARS: Everyone Counts recommends reinforcing training with online, webinar sessions as needed to offer a forum for Q&A, refreshment or new functionality training and an opportunity to train additional users. Enhanced functionality and election specific training can be delivered to users in this flexible manner.
- DOCUMENTATION: Everyone Counts recommends Training Guides and Operation Manuals be provided, along with, quick reference guides, and, FAQs specific to each module. Manuals should be designed to serve both as tutorials and as a reference guide for using the eLect VR system. Frequently Asked Questions (FAQs) should also be made available in the Help section of the eLect solution interfaces. The FAQs should include best practices and common topics based on our decades of experience with questions on the eLect solution and modules.

CUSTOMER INPUT

Training methodology should rely heavily on feedback from the system users in order to fine tune content and course structure and to achieve the most effective training system based on Washington's unique needs.

COURSE STRUCTURE

Everyone Counts recommends a schedule of half-day classroom training sessions based on need throughout the four (4) regions of Washington (or additional locations as required). Attendees should be provided training materials in the form of detailed documentation which will be prepared for each class. Additionally, online webinar sessions should be scheduled for brief refresher, seasonal and basic new functionality training.

The classroom style format should provide counties with a detailed demo of VRS with opportunity for Q&A and discussion	Approximately 1 – 4 hours
Review and discussion	Approximately 30 – 45 minutes
Project Manager should be available for one-on-one guidance as needed via Webinar or online support	

COURSE MATERIALS

Everyone Counts recommends training documentation be provided in three formats:

- USER DOCUMENTATION: Comprehensive detail and description on using the VRS Software with step-by-step instructions, suggestions for users and a troubleshooting guide.
- QUICK REFERENCE GUIDES: Graphical, task-specific instructions that guide the user through VRS.
- RECORDED WEBINAR TRAINING SESSIONS: Ideal for refresher training as desired, training for new functionality and make-up training classes for County Election Officials.

COURSE OFFERINGS

The following list is a sample descriptions of some of the training courses that Everyone Counts recommends. These courses may be amended as necessary for Washington.

- Voter Module
- Candidate Module
- Petition Module
- Voting Centers
- Election Day workers and Extra staff
- Election Module
- Streets and GIS
- Precinct Module
- District Module
- Creating, Reading, and Distributing Administrative Reports

FOLLOW-UP TRAINING OPPORTUNITIES AND HELP DESK

Everyone Counts recommends distance learning opportunities be offered Washington and its counties, not to replace initial on-site training, but to augment the effort to deliver quality training to all stakeholders. Everyone Counts will also recommends having Help Desk support available, as necessary.

WEB-BASED TRAINING

Everyone Counts recommends videos that walk the user through the functionality of the VRS in a self-guided manner. These videos should be updated as needed based on changes made to the user interface and modules.

DOCUMENTATION

Everyone Counts recommends a User Guide and Operational Guide be provided for both the election management system and voter registration systems as well as all materials needed for training and Election Day operations. We also recommend a YouTube channel containing instructional videos in order to provide efficient onboarding/training of new employees, and as a refresher resource. Finally, Everyone Counts recommends context-sensitive help built into the user interface.

VOTER OUTREACH

Because big change creates turbulence, an effective voter outreach strategy requires incorporated best practices of change management, begin early, be proactive and iterative, and promote a positive image for change. We recommend an education and voter outreach strategy that adheres to a pre-determined timeline, is measurable and laser focused on the goal of engaging and alerting the public that the opportunities for registering to vote, receiving a ballot electronically and accessing election night results have changed.

EVENTS

Everyone Counts recommends that the State and County participate in numerous community events, workshops and forums where election-related questions can be answered and educational materials can be distributed. A list of events should be posted on State and county websites as well as announced to media outlets.

COMMUNITY GROUPS

Citizen groups can help the State and counties to conduct outreach among specific demographic, especially those with historically low voter registration or participation rates. Everyone Counts recommends partnering with the key community groups to focus on more intensive voter education efforts.

OPINION LEADERS

An opinion leader is not only someone who speaks out but also gets heard and consequently is often asked for advice. In order to leverage the influence of opinion leaders, Everyone Counts recommends the following strategy:

- Targeted email campaign inviting internal and external opinion leaders to informal roundtable with Secretary of State, Auditor's, and/or election directors
- Designate key opinion leaders as partners to help educate the public
- Organize a speaker's bureau of key opinion leaders willing to conduct educational presentations to community and business groups

TECHNOLOGY

MYVOTE

The public relies on the website *www.sos.wa.gov/elections/myvote/* for personalized election information and up-to-date information about voter registration, elections and voting. To offer website visitors a comprehensive understanding of the new solutions being implemented by the State, we recommend the following changes to the page:

- Incorporate responsive web design and allow for optimal viewing and navigation across a wide range of devices
- Incorporate an RSS feed enabling visitors can receive notifications as the site is updated

SOCIAL MEDIA

Everyone Counts' recommends following social media strategies:

- OSOS use its Twitter, Facebook, Instagram, and YouTube accounts, as well as the State and counties' official social media channels to share education materials and messages, and promote further sharing by residents with their own networks
- State and counties conduct a targeted social media ad campaign targeting low voter turnout communities to increase participation and ensure understanding of the new system
- State creates a YouTube video, e.g. "How the New VRS Works", and post the link to YouTube channel and State and county websites

TRADITIONAL MEDIA

Everyone Counts recommends a media strategy that distributes the State's message via press release to key media outlets such as newspapers, radio, and television. Each platform has its own audience but the message is the same: the opportunities for registering to vote and casting ballots in the upcoming election have changed. Billboard and public transit ads, which the State has used in the past, are also effective means by which to reach a broad range of residents.

PRINTED COLLATERAL

Everyone Counts recommends a full array of print materials be developed including posters, leaflets, postcards, and pamphlets. All printed materials should be translated into the most popular native languages. PDFs of printed materials should be posted on State and County websites for easy download and on demand printing. All printed material should Include prominent references to the MyVote website to reinforce its centrality as a resource for voters. Printed copies made available to opinion leaders, community groups and organizational partners for pick up.

TIMELINE

Any established vendor is capable of delivering an update to the State's legacy system within a few months; however, we do not recommend this approach. Updating the legacy system would entail writing new code over outdated code which is inherently unstable and could ultimately result in a catastrophic failure given the current system's architecture. Therefore, Everyone Counts recommends a new system built from the ground up. We estimate delivery of the whole product consistent with Exhibit B requirements by November 2017.

COST

Everyone Counts recommends a value-based Software-as-a-Service (SaaS) model to the State of Washington. The SaaS model is driving a profound shift in the way that software vendors deliver solution to customers and approach pricing by eliminating the historical large upfront capital expenditure for enterprise software and replacing it with a subscription-based pricing model.

The value of SaaS is that the customer licenses a shared service, customized for their needs, using a configurable platform with larger costs amortized over time. Each year's license results in the continual release of tested and proven upgrades to security, interoperability, usability and features. Pricing is therefore simplified into a flat annual subscription fee, where all of the modules and features originally contracted are available on demand—and they are perpetually state of the art. This model begins shifting very large, difficult-to-budget-for capital expenditure items into operational expenditure budget items that are easier to budget for over time.

To date, legacy EMS/VRS systems have been sold to jurisdictions as a one-off software package that is "installed" and then "maintained" for years. Maintenance generally includes fixing bugs and critical issues. Like web browsers and operating systems, installed software packages eventually reach the point where even the original developers refuse to "maintain" the system and take it off of their list of supported software versions; Windows XP is a recent example. The reason that the systems are taken off of support is that installed software by its very nature is not perpetual. Like an automobile, television or existing voting machines, the parts become old and wear out and replacement parts are no longer made. In the case of installed software, the many repairs that come with a year of maintenance result in a cobweb of software language that can no longer be parsed to repair after time.

With the SaaS model, as new features and functionality are developed, largely driven from our community of users and changes in the elections and technology markets, the client benefits immediately.

In the traditional software and maintenance models if customers wish to take advantage of these new features, technologies or enhancements as well as market shifts they face a significant one-time custom development cost or the prospect of purchasing a "new version" like the old Microsoft Windows model, or replacing the existing system in its entirety with another massive capital cost. SaaS eliminates the traditional 7-10 year large, one-time procurements of enterprise software systems by continuously delivering upgrades, updates and enhancements. These can contain new features or functions as well as architectural changes delivered on a regular basis ensuring clients always have the latest version and capabilities of the software to meet the ever-changing needs. The SaaS model translates to the end to end-of-life.

So while it may seem like a good value to "own" an installed software system paying annual maintenance (and hosting) each year, the reality is that the software begins to depreciate and becomes out of date from day one. Your investment begins to lose value, just like a car, the day you drive it off the lot. Annual maintenance covers life support, not improvements or innovation.

Today, with technology advancing as quickly as it does, that end of life comes faster than ever before. Just five years ago there was only one mainstream operating system. Today there are four. Six years ago there were only a few web browsers. Today, when including continually released new versions, there are dozens. State of the art software today should work with them all. But with installed software, one cannot expect an engineer to have coded years ago for things yet to be invented. Buying and maintaining installed software no longer makes sense.

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OUR MISSION

SECURE. TRANSPARENT. PERPETUALLY STATE OF THE ART™.

Everyone Counts has uniquely built a team of industry-leading, internationally recognized election administration, computer security, and usability experts to bring modern election administration and voting systems to election officials. We have achieved this by using technologies, processes, and best practices that have been proven in other mission-critical industries throughout the world for decades. Our eLect voting solution allows election administrators to cost-effectively ensure that every person in every democracy or membership organization in the world with the right to vote can easily do so privately, independently, and securely—and with full confidence that their vote is counted.

everyonecounts®

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